

wherein the irradiation of said semiconductor layer is conducted in such a manner that said semiconductor layer is scanned with said laser beam in parallel with a carrier flow direction in said channel region.

22. (New) A method for manufacturing a semiconductor device having at least one thin film transistors, said method comprising the steps of:

forming a semiconductor layer over a substrate;

irradiating said semiconductor layer with a CW laser beam having a wavelength of 1064 nm to crystallize said semiconductor layer; and

patterning the crystallized semiconductor layer to form an active layer including a channel region,

wherein the irradiation of said semiconductor layer is conducted in such a manner that said semiconductor layer is scanned with said laser beam in parallel with a carrier flow direction in said channel region.

23. (New) A method for manufacturing a semiconductor comprising the steps of:

forming a semiconductor layer over a substrate;

irradiating said semiconductor layer with a CW laser beam having a wavelength of 532 nm to crystallize said semiconductor layer; and

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patterning the crystallized semiconductor layer to form an active layer including a channel region,

wherein the irradiation of said semiconductor layer is conducted in such a manner that said semiconductor layer is scanned with said laser beam in parallel with a carrier flow direction in said channel region.

24. (New) A method for manufacturing a semiconductor device comprising the steps of:

forming a semiconductor layer over a substrate;

irradiating said semiconductor layer with a CW laser beam having a wavelength of 355 nm to crystallize said semiconductor layer; and

patterning the crystallized semiconductor layer to form an active layer including a channel region,

wherein the irradiation of said semiconductor layer is conducted in such a manner that said semiconductor layer is scanned with said laser beam in parallel with a carrier flow direction in said channel region.

25. (New) A method for manufacturing a semiconductor device comprising the steps of:

forming a semiconductor layer over a substrate;

irradiating said semiconductor layer with a CW laser beam comprising Nd to crystallize said semiconductor layer; and

patterning the crystallized semiconductor layer to form an active layer including a channel region,

wherein the irradiation of said semiconductor layer is conducted in such a manner that said semiconductor layer is scanned with said laser beam in parallel with a carrier flow direction in said channel region.

26. (New) A method for manufacturing a semiconductor device comprising the steps of:

forming a semiconductor layer over a substrate;

irradiating said semiconductor layer with a second harmonic of a CW laser beam comprising Nd to crystallize said semiconductor layer; and

patterning the crystallized semiconductor layer to form an active layer including a channel region,

wherein the irradiation of said semiconductor layer is conducted in such a manner that said semiconductor layer is

scanned with said laser beam in parallel with a carrier flow direction in said channel region.

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27. (New) A method for manufacturing a semiconductor device comprising the steps of:

forming a semiconductor layer over a substrate;
irradiating said semiconductor layer with a third harmonic
of a CW laser beam comprising Nd to crystallize said
semiconductor layer; and

patterning the crystallized semiconductor layer to form an active layer including a channel region,

wherein the irradiation of said semiconductor layer is conducted in such a manner that said semiconductor layer is scanned with said laser beam in parallel with a carrier flow direction in said channel region.

- 28. (New) The method according to any one of claims 21, 22, 23, 24, 25, 26 or 27 wherein said semiconductor layer comprises amorphous silicon.
- 29. (New) The method according to any one of claims 21, 22, 23, 24, 25, 26 or 27 wherein the CW laser beam is a YAG laser beam.

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30. (New) The method according to any one of claims 21, 22, 23, 24, 25, 26 or 27 wherein said semiconductor layer is melted by the irradiation of the laser beam. --